

CHALTIKYAN, O. [A.]		PROCESSIES AND PROPERTIES INDEX	
<p>• 2386. Contact Potential between Liquid Amalgams and Mercury in Vacuo. Part I. O. Chaltikian and M. Froehner. <i>Acta Physicochimica</i>, 4, 2, pp. 262-274, 1934. In German.—The method employed utilizes a special form of diode in which a Hg or amalgam jet respectively serves as anodes. The characteristic curves relating current strength and anode potential for Hg and Na amalgam are found, and from the displacement of these the contact potential is determined graphically. Great care is taken to ensure the accuracy of the results. The contact p.d. concentration curve is found to be similar to an adsorption isotherm in that the contact potential of the amalgam with a Na content between 0.025 and 0.60% changes very little, and is 1.1 ± 0.1 V.</p>		R. L.	
ASB-ELA METALLURGICAL LITERATURE CLASSIFICATION		ECONOMY DIVISION	
ECONOMY DIVISION	QUALITY DIVISION	QUALITY DIVISION	

CHALTYKYAN, O. A.

Chaltykyan, O. A. - Toward a thermodynamics of cuprocomplex solutions. (Report)
" Solubility of a $\text{CaCl}_2\text{---CuCl---H}_2\text{O}$ System," Izvestiya (Akad.
nauk Arm. SSR), Fiz.-matem., yestestv. i tekhn. nauki, 1948,
No. 3, p. 237-44 -- Summary in Armenian -- Bibliog: p. 243

Sg: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

CHALIFYKYAN, O.A.; OGANDZHANYAN, K.R.

Thermodynamics of solutions of cupre-complexes. Part 3. Activity coefficient and composition of cupre-complex anions in calcium chloride solutions. Dokl. AN Arm. SSR 9 no. 4:169-173 '48.
(MLRA 9:10)

1. Yerevanskiy Gosudarstvennyy Universitet imeni V.M. Molotova,
Yerevan. Predstavlena G. Kh. Bunyatyanom.
(Copper chlorides)

[illegible]

CHALTYKYAN, O.A.; ATANASYAN, Ye.N.

Decomposition of hydrogen peroxide in activated carbon. Izv. AN
Arm. SSR. Ser. FIZMATH nauk 4 no. 6:453-465 '51. (MLRA 9:8)

1. Kafedra fizicheskoy khimii Yerevanskogo gosudarstvennogo universi-
teta imeni V.M. Molotova.

(Hydrogen peroxide) (Carbon, Activated)

CHALTYKYAN, O.A.; ATANASYAN, Ye.H.; SARKISYAN, A.S.

Kinetics of the reactions of peroxides with amines. Part 1. Kinetics of the interaction of benzoyl peroxide with diethylamine in diethyl ether solution. Dokl.AN Arm.SSR 15 no.1:23-26 '52. (MLRA 9:10)

1.Yerevanskiy Gosudarstvennyy universitet imeni V.M.Molotova. Predstavlene G.Kh.Bunyatyane.
(Benzoyl peroxide) (Diethylamine)

CHALIFYKYAN, O.Z.; ATANASYAN, Ye.N.; SARKISYAN, A.S.

Kinetics of the reaction of peroxides with amines. Part 2. Kinetics of the interaction of benzoyl peroxide with diethylamine in an acetone solution. Dokl. AN Arm. SSR. 15 no.2:41-45 '52.

(MLRA 9:10)

S. Yerevanskiy gosudarstvennyy universitet imeni V.M. Molotova.
Kafedra fizicheskoy khimii. Predstavleno G.Kh. Buntyanom.
(Benzoyl peroxide) (Diethylamine)

CHALTYRYAN, O. A.

Kinetics and mechanism of the reaction of benzoyl peroxide with secondary amines. O. A. Chaltyryan. *Voprasy Khim. Kinetiki, Kataliza i Reaktsionnoi Spособnosti*.

Acad. Nauk S.S.S.R., Otdel. Khim. Nauk 1955, 354-9. — The rate of reaction of Bz_2O_2 with secondary amines decreases with increased size of the amine radicals; closure of the radicals into a ring accelerates the reaction. The order of the reaction rate is affected by the concn. of reagents and the nature of solvent. For Ph_2NH and $(PhCH_2)_2NH$ the general scheme proposed by Gamburyan (cf. *C.A.* 21, 1038) is not applicable. In Me_2CO the reaction of Ph_2NH and Bz_2O_2 has activation energy about 12 kcal./mole; NO stops the reaction at formation of diphenylnitrosamine. The results indicate the intermediate radical R_2N . The Bz_2O_2 formed in the reaction produces a hindering effect on the amine- Bz_2O_2 reaction in aprotic and amphiprotic solvents. G. M. Kosolapoff

CH

met

CHALTYKYAN, O.A.

✓ Kinetics of reactions of peroxides with amines. IV. Order of reactions of secondary aliphatic amines with benzoyl peroxide. O. A. Chaltykian, B. N. Afanasyan, and D. M. Gafbak. *Tr. Khimicheskogo Nauchnogo Tsentra Akad. Nauk Armyan. S.S.R.* 72, No. 1, 13-16 (1956) (in Russian); cf. *ibid.* 15, No. 2, 41 (1952); *C.A.* 49, 11374s. — The reaction rate of Et_3NH with Bz_2O_2 was detd. in dil. dioxane solns. Despite the basic nature of the solvent the reaction shows a self retardation effect. In Et_2O the reaction rate accelerates with time relative to the 2nd-order equation, and at very high concns. the reaction is violent. In dioxane, Me_2CO , and C_6H_6 the reaction retards itself relative to the 2nd-order reaction rate. At low initial concns. the 2nd-order rate applies with activation energy of 14.6 kcal./mole. The results indicate a radical-chain type of reaction. In Et_2O the retarding effect of the BzOH formed is insignificant. G. M. Kosolapoff

chem
PM

CHAEYKYAN, O.A.; CHTYAN, G.S.; DARBINYAN, G.

Possibility and accuracy of determining the rate of oxidation for cuprous chloride in a complex salt solution by measuring the conductivity. Nauch.trudy Brev.un.no.53:95-103 '56. (MLBA 9:10)

1.Kafedra fizicheskoy khimii.
(Copper chlorides) (Oxidation)

CHALTYKYAN, O.A.; CHTYAN, G.S.

Autooxidation kinetics of copper chloride in acidic aqueous
solutions of potassium chloride. Nauch. trudy Erev. un. 60:
125-133 '57. (MIRA 11:8)

1. Kafedra fizicheskoy khimii Yerevanskogo gosudarstvennogo
universiteta.
(Copper chloride) (Oxidation) (Potassium chloride)

CHALTYKYAN, O.A.; MANYAN, A.N.; MOVSESYAN, R.V.

Catalytic action of copper iodide on the oxidation of oxalate ion
by perfulfate ion. Nauch. trudy Erev. un. 60:135-142 '57.
(MIRA 11:8)

1. Kafedra fizicheskoy khimii Yerevanskogo gosudarstvennogo
universiteta.

(Copper iodide) (Oxalates) (Peroxidisulfates)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Oxidation of cuprous chloride by sodium perfulfate. Izv. AN Arm.
SSR khim. nauk 11 no.1:13-22 '58. (MIRA 11:6)

1. Yerevanskiy gosudarstvennyy universitet.
(Copper chlorides) (Sodium sulfates) (Oxidation)

CHALTYKYAN, O.A.; BEYLERAYN, H.M.

Reaction of potassium persulfate with diethylamine. Report
No.2: Effect of pH of media on the reaction rate. Izv. AN
Arm.SSR. Khim.nauki 11 no.3:153-158 '58. (MIRA 11:11)

1. Yerevanskiy gosudarstvennyy universitet.
(Potassium sulfates) (Diethylamine) (Hydrogen ion concentration)

5(4)

SOV/76-32-11-22/32

AUTHORS:

~~Chaltykyan, O. A.~~, Atanasyan, Ye. N., Sarksyian, A. A.,
Marmaryan, G. A., Gaybakyan, D. S.

TITLE:

Reaction Kinetics of Peroxides in Solutions (Kinetika reaktsii
perekisey v rastvorakh) I. Reaction Kinetics of Benzoyl
Peroxide With Secondary Aliphatic Amines (I. Kinetika vzai-
modeystviya perekisi benzoila so vtorichnymi alifaticheskimi
aminami)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2601-2607
(USSR).

ABSTRACT:

Diethyl, dipropyl, di(n-butyl), and diisobutyl amine with
benzoyl peroxide in ether, acetone, benzene and dioxane
solutions were investigated. These amines were selected as they
differ with respect to their alkalinity. The kinetic measure-
ments were carried out at 25°C and below in a double flask
(Fig). Benzoyl peroxide was identified iodometrically according
to the method by Gelissen and Hermans (Germans) (Ref 9). The
experiments showed that the reaction with all four amines in
all four solvents was of second order, and that the benzoic
acid formed considerably hampers the reaction. The reaction

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SOV/76-32-11-22/32

Reaction Kinetics of Peroxides in Solutions. I. Reaction Kinetics of Benzoyl Peroxide With Secondary Aliphatic Amines

velocity changes in ether solutions (Table 1) as follows: diethyl amine > n-dibutyl amine > dipropyl amine > diisobutyl amine. A comparison of the experimental results (Tables 1-4) shows that the reaction velocity in ether solutions is five times lower than that in acetone or dioxane solutions. The velocity constant $k_{20} = 0.24$ in benzene solutions was determined by S. L. Mkhitarian. It was found that the velocity and the mechanism of the reaction of secondary amines with benzoyl peroxide depends on the alkalinity (proton acceptor property) of the amine. The reaction either takes place according to a bimolecular mechanism (aminolysis of the peroxide) or by way of an intermediate complex compound (amine peroxide). In the second case benzoic acid (as amine salt) and O-benzoyl-N-N-dialkyl-hydroxylamine had to be obtained as stable end products, which fact was proved by S. P. Gambaryan et al. (Refs 1-2, 4-6). There are 1 figure, 5 tables, and 12 references, 8 of which are Soviet.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)
Card 2/3

5(4),
AUTHORS:SOV/76-33-1-7/45
Chaltykyan, O. A., Atanasyan, Ye. N., Beyleryan, N. M.,
Marmaryan, G. A.

TITLE:

Reaction Kinetics of Peroxides in Solutions (Kinetika reaktsiy
perekisey v rastvorakh) II. Reaction Kinetics of Benzoyl
Peroxide With Diphenylamine (II. Kinetika vzaimodeystviya
perekisi benzola s difenilaminom)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 1, pp 36-44 (USSR)

ABSTRACT:

It was already shown that in a reaction of benzoyl peroxide (I) with secondary aliphatic amines the reaction velocity (RV) increases in proportion with the alkalinity of the amines and the solvent (Ref 1). The reaction mentioned in the title was already investigated by S. P. Gambaryan (Ref 3) as well as by Kh. S. Bagdasar'yan and R. I. Milyutinskaya (Ref 4). The working method of the present case is rather similar to that of the investigations (Ref 4). It was observed (Tables 1,2) that the reaction velocity of (I) with diphenylamine (II) is greatest in benzene solutions; equal in ether and acetone solutions, which is, however, slower than in benzene; i. e. in the reaction of (I) with (II) the influence of the solvent is different from that in the case of aliphatic alkaline

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SOV/76-33-1-7/45

Reaction Kinetics of Peroxides in Solutions. II. Reaction Kinetics of
Benzoyl Peroxide With Diphenylamine

secondary amines. If the benzene solutions are diluted (Table 3), the reaction order changes and approaches an order of the second degree (as was observed in reference 4). Determinations of the RV in vinyl acetate solutions at 20, 30, and 40°C showed (Fig 1) that the RV decreases strongly in comparison to the benzene solutions, which may be explained by the formation of free benzoate radicals. Using an appropriate arrangement (Fig 3), investigations on the absorption of nitrogen oxides (III) in benzene solutions of (I) + (II) at 20° and in acetone solutions at 20, 25, 30, and 40° were carried out. As soon as the initial concentration of (I) and (II) is increased, the absorption velocity of (III) increases in proportion with the concentrations of (I) and (II) (Fig 5). The formation of a free diphenyl nitrogen radical was proved qualitatively by means of concentrated sulfuric acid. The temperature function of the absorption velocity of the (III) by (I) and (II) in acetone solutions is characterized as an exponential function (Figs 6,7). The value found for the activation energy (12.7 kcal) corresponds to that mentioned in reference 4. It is assumed that:

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SOV/76-33-1-7/45

Reaction Kinetics of Peroxides in Solutions. II. Reaction Kinetics of Benzoyl Peroxide With Diphenylamine

- 1) the reaction between (I) and (II) is a chain reaction proceeding via free diphenyl nitrogen and benzoate radicals;
- 2) the beginning of the chain formation is based on an elementary reaction between the molecules of (I) and (II);
- 3) the reaction becomes more complicated as the formation velocity of the benzoate radicals increases. It is stated that, in contrast to the strongly alkaline aliphatic secondary amines, the weakly alkaline (II) splits the (I) homolytically at the peroxide bindings. There are 7 figures, 4 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: May 28, 1957

Card 3/3

CHALTYKYAN, O.A.; BEYLERNYAN, N.M.

Reaction of potassium persulfate with amines in aqueous solutions.
Report No.5: Kinetics of reactions between potassium persulfate and
trimethyl- and triethylamine. Izv. AN Arm. SSR. Khim. nauki 13
no.5:315-323 '60. (MIRA 14:2)

1. Yerevanskiy gosudarstvennyy universitet. Kafedra fizicheskoy i
kolloidnoy khimii.

(Potassium peroxydisulfate) (Triethylamine)
(Triemethylamine)

CHALTYKYAN, O.A., BEYLERYAN, H.M.

Kinetics of reactions between potassium persulfate and amines in aqueous solutions. Dokl. AN Arm. SSR 30no.4:225-299 '60.
(MIRA 13:8)

1. Yerevanskiy gosudarstvennyy universitet. Predstavleno akad.
AN Armyanskoy SSR G.Kh. Bunyatyanom.
(Potassium sulfate) (Amines) (Chemical reactions, Rate of)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Kinetics of the reaction of potassium persulfate with amines in aqueous solutions. Part 4: Reaction of potassium persulfate with amino alcohols. Dokl. AN Arm.SSR 31 no. 2:73-77 '60. (MIRA 13:11)

1. Yerevanskiy gosudarstvennyy universitet. Predstavleno akademikom AN Armyanskoy SSR M.A. Ter-Karapetyanom.
(Potassium sulfates) (Alcohols)

BEYLERYAN, N.M.; CHALTYKIAN, O.A.

Kinetics of reactions of potassium persulfate and amines in aqueous solutions. Part 8: Effect of the nature and structure of the amines on kinetics. Dokl.AN Arm.SSR 31 no.3:147-151 '60.
(MIRA 13:12)

1. Yerevanskiy gosudarstvennyy universitet. Prestavleno akademikom
AN Armyanskoy SSR G.Kh.Bumyatyanom.
(Potassium sulfates) (Amines)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Reaction kinetics of potassium persulfate with amines in aqueous solutions. Report No.7: Effect of alkali on the kinetics of the persulfate - amino alcohols reaction. Izv.AN Arm.SSR.Khim.nauki 14 no.1:7-14 '61. (MIRA 15:5)

1. Yerevanskiy gosudarstvennyy universitet, problemnaya laboratoriya fiziko-khimii polimerov.
(Potassium peroxydisulfate) (Alcohols)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Kinetics of the reactions of potassium persulfate with amines in aqueous solutions. Report No.9: Effect of cations on the kinetics of the reaction persulfate - diethylamine. Izv.AN Arm.SSR. Khim.nauki 14 no.3:197-207 '61. (MIRA 14:9)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fizicheskoy i kolloidnoy khimii.

(Peroxymonosulfates) (Diethylamine) (Cations)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Kinetics of the reaction of potassium persulfate with amines in aqueous solutions. Report No.10: Effect of Cu and Ag cations on the kinetics of the reaction persulfate - amino alcohols. Izv.AN Arm.SSR. Khim.nauki 14 no.3:209-216 '61. (MIRA 14:9)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fizicheskoy i kolloidnoy khimii.

(Peroxymonosulfates) (Alcohols) (Cations)

CHALTYKYAN, O.A.; BEYLERYAN, N.M.; CHOBANYAN, M.S.; SARUKHANYAN, E.R.

Investigating the kinetics of persulfate - amines reactions in aqueous solutions. Report No.12: Study of the kinetics of colamine and pyridine oxidation with potassium persulfate in the presence of silver ions. Izv.AN Arm.SSR.Khim.nauki 14 no.4:293-302 '61. (MIRA 14:10)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fizicheskoy khimii i problemnaya laboratoriya kinetiki polimerizatsionnykh protsessov.

(Ethanol) (Pyridine) (Oxidation)

S/171/62/015/005/006/008
E075/E592

AUTHORS: Durgaryan, A.A., Grigoryan, A.S. and Chaltykyan, O.A.
TITLE: Copolymerization of vinylacetate with 1,3-dichlorobutene-2 and conversions of the obtained copolymers
PERIODICAL: Akademiya nauk Armyanskoy SSR. Izvestiya. Seriya khimicheskikh nauk. v.15, no.5, 1962, 455-461

TEXT: The copolymerization of 1,3-dichlorobutene-2 was investigated in view of the previously established fact that it does not undergo a radical polymerization. The copolymerization was carried out in sealed ampules and also in a flask with a reflux condenser, using 2% benzoyl peroxide as initiator. The relative activities of vinylacetate and 1,3-dichlorobutene-2 were calculated from the dependence of the copolymer composition and that of the mixture of monomers, using the Mayor-Lewis formula and found to be 4.8 ± 0.9 and 0.0, respectively. The rate of the copolymerization and the maximum percentage conversion of vinylacetate decrease with the content of 1,3-dichlorobutene-2. This indicates that the latter monomer acts as a chain transfer agent and a weak inhibitor. The intrinsic viscosity of the copolymer also decreases. The intrinsic viscosity and molecular weight of Card 1/2

Copolymerization of vinylacetate ... S/171/62/015/005/006/008
E075/E592

the copolymer increase, but the copolymerization rate decreases, when the temperature of the copolymerization decreases from 80°C to 35°C. However, at 35°C and in the presence of benzoyl peroxide, vinylacetate alone polymerizes more rapidly. The average molecular weight of the copolymers was about 11000. The copolymers react with thiourea forming substituted isothiurea salts. The latter are saponified by aqueous/alcoholic NaOH, the acetate groups undergoing alcoholysis. The interaction of the copolymers with dimethylamine is accompanied by a partial removal of the acetate groups. The resulting products contain Cl, OH, acetate and amino-groups. There are 3 figures and 5 tables.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet, Problemnaya laboratoriya fiziko-khimii polimerov
(Yerevan State University. Problem Laboratory for Physics and Chemistry of Polymers)

SUBMITTED: July 24, 1962

Card 2/2

BEYLERYAN, N.M.; CHALTYKYAN, O.A.; GUKASYAN, T.T.

Kinetics of the reaction persulfate - diethylethanolamine.

Dokl.AN Arm.SSR 35 no.1:37-40 '62.

(MIRA 15:8)

1. Yerevanskiy gosudarstvennyy universitet. Predstavleno
akademikom AN Armyanskoy SSR G.Kh.Bunyatyanom.
(Ethanol) (Potassium peroxydisulfate) (Amines)

DURGARYAN, A.A.; GRIGORYAN, A.S.; CHALTYKYAN, O.A.

Copolymerization of vinyl acetate with 1,3-dichloro-2-butene
and the transformations of the copolymer obtained. *Izv. AN Arm.
SSR. Khim. nauki* 15 no.5:455-461 '62. (MIRA 16:2)

1. Yerevanskiy gosudarstvennyy universitet, problemnaya
laboratoriya fiziko-khimii polimerov.

(Vinyl acetate)

(Butene)

(Polymerization)

CHALTYKYAN, Ovanes Akopovich; NEYMAN, M.B., otv. red.

[Cupro catalysis] Kuprokataliz. Erevan, Armgosizdat,
1963. 133 p. (MIRA 17:6)

ACCESSION NR: AT4028342

S/0000/63/000/000/0260/0264

AUTHOR: Chaltykyan, O. A.; Bayleryan, N. M.

TITLE: Kinetics of potassium persulphate reactions with amines

SOURCE: Soveshchaniye po khimii perekisnykh soyedineniy. Second, Moscow, 1961. Khimiya perekisnykh soyedineniy (chemistry of peroxide compounds); Doklady* soveshchaniy. Moscow, Izd-vo AN SSSR, 1963, 260-264

TOPIC TAGS: potassium persulphate, amine, peroxide, organic peroxide, aliphatic amine, aromatic amine, heterocyclic amine, amino alcohol, benzoil peroxide, potassium hydroxide, polymerization

ABSTRACT: Unique oxidation reduction systems occur in the reaction of peroxides, particularly with amines. Some of these systems can be successfully applied for initiating polymerization. A systematic investigation of the kinetics of the reactions of various aliphatic, aromatic, and heterocyclic amines, as well as amino alcohols with benzoil peroxide in organic media and with potassium persulphate in aqueous solutions were undertaken by the authors in order to explain the differences in the reaction mechanism of amines with peroxides. In studying the kinetics of these reactions, a number of general regularities were found including the fact that

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ACCESSION NR: AT4028342

amines which enter easily into a reaction with benzoyl peroxide in organic media and with potassium persulphate in aqueous solutions can be divided into two groups, the first containing primary and secondary aliphatic amines and piperidine, the second containing tertiary amines and amino alcohols. This separation is derived from graphs. Peroxide-amine systems of the second group initiate polymerization of vinyl acetate with more or less efficiency in solution as well as in an emulsion at a temperature below the thermal decay temperature of the peroxides. A diagram is presented to explain the effect of the alkali, the formation of diethylvinylamine and subsequent oxidation of the latter by the persulphate in the presence of potassium hydroxide or by a temperature increase (self-acceleration). Orig. art. has: 6 figures and 2 formulas.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: 13Dec63

DATE ACQ: 06Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 010

OTHER: 007

Card 2/2

ACCESSION NR: AT4028343

S/0000/63/000/000/0265/0269

AUTHOR: Bayleryan, N. N.; Chaltykyan, O. A.

TITLE: Kinetics of potassium persulphate reactions with amines. The effect of cations on variable valence

SOURCE: Soveshchaniye po khimii perekisnykh soyedineniy. Second, Moscow, 1961. Khimiya perekisnykh soyedineniy (chemistry of peroxide compounds); Otdelnye soveshchaniy. Moscow, Izd-vo AN SSSR, 1963, 265-269

TOPIC TAGS: potassium persulphate, amine, variable valence, aliphatic amine, cation, silver (I), copper (II), cobalt (II)

ABSTRACT: the authors tested the catalytic activity of two groups of cations: cations, the valence state of which is difficult to measure and cations of variable valency (cobalt (II), copper (II), and silver (I)). The authors selected a persulphate reaction with diethylamine in the presence of the above mentioned cations as a standard reaction. In a previous experiment, the authors measured the speed of catalytic oxidation of a number of amines and established that under the same conditions, the persulphate reaction with aminol alcohols occurs with self-acceleration and for the majority of aliphatic amines the following equation is valid

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ACCESSION NR: AT4028343

$$\lg W_1^0 = b - a \lg K_1 \quad (2)$$

where W_1^0 is the initial velocity of the catalyzed reaction; K_1 is the dissociation constant of the chosen amines; a and b are constants. In conclusion, the authors claim that in persulphate-amine reactions, only cations of variable valence have a catalytic activity. The amino alcohols-persulphate- Ag^+ reactions when $(Ag^+) \geq 1 \times 10^{-4}$ g-ion/ltr are of a self-accelerating character. A probable explanation is given to this phenomenon. The following correlation occurs in the case of persulphate-aliphatic amines- Ag^+ reactions:

$$\lg W_{cat}^0 = b - a \lg k_1$$

Two reactions occur in parallel: one is the persulphate reaction with a free amine molecule and the other reactions is with amine of silver or copper. Experimentally established kinetic regularities lead to the assumption that a complex containing in addition to one cation (Ag^+ or Cu^{2+}) one amine molecule is kinetically active, i.e., the monoamine complex of copper or silver is kinetically active. Orig. art. has: 5 figures and 3 formulas

Card 2/3

ACCESSION NR: AT4028343

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: 13Dec63

DATE ACQ: 06Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 004

OTHER: 000

Card 3/3

ACCESSION NR: AT4028344

S/0000/63/000/000/0270/0274

AUTHOR: Sogomonyan, B. M.; Chaltykyan, O. A.

TITLE: On the reaction speed of benzoil peroxide with triethanolamine in organic solvents

SOURCE: Soveshchaniye po khimii perekisnykh soyedineniy. Second, Moscow, 1961. Khimiya perekisnykh soyedineniy (chemistry of peroxide compounds); Doklady* soveshchaniy. Moscow, Izd-vo AN SSSR, 1963, 270-274

TOPIC TAGS: benzoil peroxide, triethanolamine, organic solvent, amino alcohol, peroxide, amine, Arrhenius equation

ABSTRACT: This paper discusses some investigation results on the effects of a concentration of reagents, the nature of a solvent and temperature on the speed of reaction of benzoil with triethanolamine. Benzoil peroxide-amino alcohol systems (especially the benzoil peroxide-triethanolamine system) have proved themselves effective initiators of polymerization of vinyl acetate in a methanol solution, as was established in laboratory tests. The authors claim that in the case of an amino alcohol, a reaction with benzoil peroxide begins with the formation of a kinetically active amine-peroxide complex which decays to an acid and intermediate products.

Cord 1/2

ACCESSION NR: AT4028344

The molecules of the solvent and the amine as such contribute largely to the decay of this complex, in proportion to their basicity. This paper concludes that the speed of reaction of triethanolamine with benzoyl peroxide in the indicated organic solvent depends on the nature of the solvent, whereas the mechanism does not. The effect of the solvent is explained by its catalytic action on the decay of the primarily formed amine-peroxide complex. The temperature dependence of the reaction speed is in accordance with the Arrhenius equation for all given solvents, except dioxane. The reaction order of peroxide is equal to 1.5 and in the case of this order varies from 0.5 to 1 dependent on the concentration of the latter. A diagram of this reaction is proposed in the assumption that this is a radical chain reaction. The speed equations derived on the basis of this diagram correspond with those found empirically. Orig. art. has: 7 formulas, 5 figures, and 1 table.

ASSOCIATION: Yerevanskiy gosudarstvennyy universitet (Yerevan State University)

SUBMITTED: 13Dec63

DATE ACQ: 06Apr64

ENCL: 00

SUB CODE: CH

NO REF SOV: 002

OTHER: 000

Card 2/2

MKHITARYAN, S.L.; BEYLERYAN, N.M.; CHALTYKYAN, O.A.

Study of peroxide-amine systems as polymerization initiators.
Izv. AN Arm.SSR. Khim. nauki 16 no.6:527-534 '63 (MIRA 17:8)

1. Yerevanskiy gosudarstvennyy universitet, problemnaya labora-
toriya kinetiki polimerizatsii.

CHALTYKYAN, O.A.; BEYLERYAN, N.M.; GUKASYAN, T.T.

Mechanism of oxidation of formate ion by persulfate in aqueous solutions in the presence of Cu^{2+} . Izv.AN Arm.SSR.Khim.nauki 17 no.1:14-20 '64. (MIRA 17:4)

1. Yerevanskiy gosudarstvennyy universitet, problemnaya laboratoriya kinetiki polimerizatsionnykh protsessov.

CHALTYKYAN, O.A.; BEYLERYAN, N.M.; SARUKHANYAN, E.R.

Effect of the solvent on the reaction rate of benzoyl peroxide
with diethylamine. Izv.AN Arm.SSR.Khim.nauki 17 no.1:21-28
'64. (MIRA 17:4)

1. Yerevanskiy gosudarstvennyy universitet, problemnaya
laboratoriya kinetiki polimerizatsionnykh protsessov.

BEYLERYAN, N.M.; GRIGORYAN, S.K.; CHALTYKYAN, O.A.

Kinetics of the reactions of amines with hydroperoxides.

Part 1: Reaction of cumene hydroperoxide with triethanolamine.

Izv.AN Arm.SSR.Khim.nauki 17 no. 3:245-254 '64.

Kinetics of the reactions of amines with hydroperoxides.

Part 2: Effect of potassium hydroxide on the rate of the
reaction cumene hydroperoxide - triethanolamine. Ibid.:255-261
(MIRA 17:7)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fizicheskoy
i kolloidnoy khimii.

BEYLERYAN, N.M.; GRIGORYAN, S.K.; CHALTYKYAN, O.A.

Kinetics of the reactions of amines with hydroperoxides. Part 3:
Mechanism of the reaction of cumene hydroperoxide with triethanol-
amine. Izv. AN Arm. SSR.Khim.nauki 17 no.6:604-612 '64.

(MIRA 18:6)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fizicheskoy i
kolloidnoy khimii.

SARUKHANYAN, E.R.; BEYLERYAN, N.M.; CHALTYKYAN, O.A.

Effect of the structure of amines on the kinetics of reactions of benzoyl peroxide with amino alcohols. Dokl. AN Arm. SSR 38 no.5: 285-288 '64. (MIRA 17:6)

1. Yerevanskiy gosudarstvennyy universitet. Predstavleno akademikom AN Armyanskoy SSR M.A.Ter-Karapetyanom.

CHALTYKYAN, O.A.; BEYLERYAN, N.M.; SAMVELYAN, A.L.

Temperature dependence of the rate of peroxysulfate - triethanolamine reaction. Dokl. AN Arm. SSR 39 no.1:35-40 '64. (MIRA 17:8)

1. Yerevanskiy gosudarstvennyy universitet. Predstavleno akademikom AN Armyanskoy SSR M.A.Ter-Karapetynom.

CHALTYKYAN, O.A.; GRIGORYAN, S.K.; BEYLERYAN, N.M.

Kinetics of reactions of hydrogen peroxide with amines.
Part 4: Reaction kinetics of cumene hydroperoxide with
triethylamine and diethylaminoethanol. Izv. AN Arm. SSR.
Khim. nauki 18 no.2:133-138 '65. (MIRA 18:11)

1. Yerevanskiy gosudarstvennyy universitet, kafedra fiziki-
cheskoy khimii. Submitted July 16, 1964.

GRIGORYAN, S.K.; CHALTYKYAN, O.A.; BEYLERYAN, N.M.

Effect of the structure of amines on the decomposition rate
of cumene hydroperoxide. Dokl. AN Arm. SSR 40 no.3:165-167
'65. (MIRA 18:12)

1. Yerevanskiy gosudarstvennyy universitet. Submitted July
21, 1964.

L 63997-65 ENT(1) IJP(c)
ACCESSION NR: AP5018418

UR/0252/65/041/001/0027/0033 13

AUTHORS: Gazazyan, A. D.; Chaltykvan, V. O. 10

TITLE: Ionization of hydrogen atom under the influence of
intense electromagnetic radiation 21

SOURCE: AN ArmSSR. Doklady, v. 41, no. 1, 1965, 27-33

TOPIC TAGS: hydrogen ionization, intense electromagnetic radiation,
tunnel effect, multiphoton transition, ionization probability

ABSTRACT: Following ideas advanced by L. V. Keldysh (ZhETF v. 47,
1945, 1964), the authors determine the ionization of a hydrogen atom
in the field of intense circularly polarized electromagnetic radia-
tion, accompanied by absorption of several quanta of light. Such
ionization is of interest since it can be induced by a laser emis-
sion. The period of the external field is assumed to be much long-
er than the time of passage of the electrons through the potential

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L 63997-35

ACCESSION NR: AP5018418

barrier, so that the ionization has the same character as the tunnel effect in a constant electric field, and its probability can be calculated by standard methods. If the field period is much shorter than the tunneling time, then the process has a multiphoton character, but its nature remains the same. The ionization probability is calculated theoretically as well as numerically, using both the tunnel-effect and the multiphoton-effect formulas, as functions of the external field intensity and of the number of absorbed light quanta at 1.8 eV energy. The results become comparable only when the number of absorbed quanta is large. We thank Professor M. L. Ter-Mikayelyan for numerous useful discussions. This report was presented by M. L. Ter-Mikayelyan. Orig. art. has: 22 formulas and 1 table. [02]

ASSOCIATION: Ob'yedinennaya radiatsionnaya laboratoriya Akademii nauk Armyanskoy SSR i Yerevanskogo gosudarstvennogo universiteta (Joint Radiation Laboratory of the Armenian Academy of Sciences and the Yerevan State University)

Card 2/3

L 63997-65

ACCESSION NR AP5018418

SUBMITTED: 00

ENCL: 00

SUB CODE: NP, EM

NO REF SOV: 004

OTHER: 001

ATD PRESS: 4057

llc
Card 3/3

CHALUBINSKA, A.

Geografia W Szkole - Vol. 7, no. 6, Nov./Dec. 1954.

We shall wander again today; a lesson on a pool in grade 3. p. 305.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

CHALUBINSKA, A.

Landscapes in Lublin Voivodeship. p. 57.
GEOGRAFIA W SZKOLE, Warszawa, Vol. 8, no. 2, Mar./Apr. 1955.

SO: Monthly List of East European Accessions, (SEAL), LC, Vol. 4, no. 10, Oct. 1955,
Uncl.

CHALUBINSKA, A.

Czasopismo Geograficzne - Vol. 26, no. 1/2, 1955.

Professor Romer, man and teacher. p. 32.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

~~CHAZUBINSKA~~ A., JANISZEWSKI M.

Geografia ogólna (General geography) by A. Cha~~z~~ubinska and M. Janiszewski.
Reported in New Books (Nowe Książki.) March 1, 1956.

CHALUBINSKA, A.

From the windows of a coach on the Warsaw-Krakow line Pt. 2.
Kielce-Krakow. p. 20 Vol. 9, no. 1, Jan./Feb. 1956 Warszawa
GEOGRAFIA W SZKOLE

SOURCE: East European Accession List (EEAL) Library of Congress
Vol. 5, no. 8, August 1956

CHALUBINSKA, Aniela

Jubilee Scientific Session devoted to E. Romer's cartography, [held in Warsaw March 5, 1960]. Przegl geogr 32 no.4:606-610 '60.

CHALUBINSKA, Aniela

Maps of the former Polish territories by Ignacy Domeyko; preliminary
report. Przegl geogr 33 no.1:53-56 '61. (EEAI 10:6)
(Domeyko, Ignacio) (Poland--Maps)

KUCZYNSKI, Henryk; CHALUBINSKI, Zenon

Stereochemistry of the carane system; a new 3,4-epoxycarane and its isomerisation with pulverised sodium. Roczniki chemii 34 no.1:177-188 '60. (KEAI 10:9)

1. II Katedra Chemii Organicznej Politechniki, Wrocław, i Katedra Chemii Organicznej Uniwersytetu, Wrocław.

(Carane) (Epoxycarane) (Sodium)

CHALUKOV, A.; ZANKOV, A.

"A new more-productive MK50A electrode."
"Induction-heating systems and furnaces."

TEZHA PROMISHLENOST, Sofia, Bulgaria, Vol. 8, no. 3, Mar. 1959

Monthly list of East Europe Accessions (EEAI), IC, Vol. 8, No. 6, Sept 59
Unclas

CHALUKOV, I.; ANCHIN, S.

"Typological Differences of Trees in the Belmeken Kolarov Peak Forest Land Unit as Reflected in Practice." p. 403. (GORSKO STOPANSTOV, Vol. 9. no. 9, Nov. 1953. Sofiya, Bulgaria.)

So: Monthly List of East European Accessions, LC, Vol. B, No. 5, May 1954/Unclassified

CHALUKOV, I.

"Problem of introducing forest typification in Bulgaria."
Gorsko Stopanstvo, Sofiya, Vol. 10, No 6, June, 1954, p. 249

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

CHALUKOV, I. ANDONOV, A.

CHALUKOV, I.; ANDONOV, A. Results from the inventory of the natural renewal of our high-truck forests. p. 247

Vol. 12, No. 6, June 1956.

GORSKO STOPANSTVO

AGRICULTURE

Sofia, Bulgaria

So: East European Accession, Vol. 6, No. 2, February 1957

CHALUKOV, I.

Normalizing the use of our high-tree forests. p. 488.

(GORSKO STOPANSTVO, Vol. 12, no. 10, Dec. 1956, Sofia, Bulgaria.)

SO: Monthly List of East European Accessions (EFAL) LC, Vol. 6, no. 12, December 1957 Uncl.

CHALUKOV, ZH.

TECHNOLOGY

Periodical: IZVESTIYA. No. 5/6, 1958.

CHALUKOV, ZH. Limitation of the span between the poles of aerial electric lines. p. 425.

Monthly List of East European Accession (EEAI), LC., Vol. 8, No. 2,
February 1959, Unclass.

GHALUFA, Adolf, inz.

Activities of the enterprise Institute of Research, Development,
and standardization of Steel Structures of the Vitkovicka
zelezarny Klementa Gottwalda. Inz stavby 12 no.4s181-183 Ap
'64.

CHALUPA, B.; (Brno, Kr. Pole, Purkynova)

The use of model performances in the time analysis of attention.
Activ. nerv. sup. (Praha) 7 no.2:180-181 '65

1. Clinic of Occupational Diseases, Brno.

84950

Z/037/60/000/006/004/010
E192/E382

26.2246

AUTHOR: Chalupa, Bohumil

TITLE: Automatic Single-channel Analyser

PERIODICAL: Československý časopis pro fysiku, 1960, No. 6,
pp. 530 - 533

TEXT: The instrument described forms an integral part of a scintillation spectrometer.¹⁹ A block diagram of the device is shown in Fig. 1. The electrical pulses obtained at the output of the scintillation probe S (Fig. 1) are proportional to the energy of the particles which impinge on the scintillator placed in the probe. These pulses are amplified in a linear amplifier LZ; sometimes they are shaped in special circuits. The amplified pulses are then applied to the analyser AA. The pulses from the analyser are then recorded by the counter R. The counter records only the pulses in that "channel" to which it is adjusted. The measurement is effected by shifting the "channel" over a range of amplitudes and the pulses counted in each "channel" are counted over the same time interval. The setting of the amplitude level, the measurement and the recording of the number of pulses can be done automatically. For this
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Z/057/60/000/006/004/010
E192/E382

Automatic Single-channel Analyser

purpose a special instrument was developed at the Institute of Nuclear Physics in Prague during 1956. A block diagram of this device is shown in Fig. 2. The instrument comprises an automatic device for channel setting, recording the state of the counters and a recording device. The instrument contains a function selector VF with a time switch CS and a generator G ; there is also a reading circuit CO and a writing circuit PO . The function selector is the main control unit of the instrument and it performs the level or channel setting, and the switching in the counter and the time switch. The selector is driven by a stepping pulse generator. The selector also controls the measurement in that it switches on the amplitude analyser and the counter for the duration of the interval set on the time switch. The recording is done by the reading and writing circuits which are also controlled by the function selector. The results of the measurement, i.e. the number of pulses, are recorded by means of the counter. The state of the bistable circuits in the counter is read by means of the decoder of the reading circuit. By examining the state of four electron tubes

Card 2/4

Automatic Single-channel Analyser

Z/037/60/000/006/004/010
E192/E382

in a decade of the counter a given digit can be determined. This function is performed by the contacts of a selector which applies suitable voltage to the grids of electron tubes whose anodes contain sensitive relays; these perform the decoding. The state of the relays determines the digit recorded by the counter and this is, in turn, recorded in a mechanical memory. After recording all the digits, the equipment is reset and the reading is printed on a paper tape. A detailed block diagram of the instrument is shown in Fig. 3. The instrument has been found satisfactory in operation and it requires very little servicing. Apart from its application in the scintillation spectrometer it can be used in the measurement of the decay curves of various radio-isotopes. The author expresses his gratitude to J. Vavro, Engineer Šimánek and Urbanec for cooperation and valuable advice.

X

Card 3/4

84950

Z/037/60/000/006/004/010
E192/E382

Automatic Single-channel Analyser

There are 3 figures and 3 references: 1 Soviet and 2 English.

ASSOCIATION: Ústav jaderného výzkumu, Praha
(Institute of Nuclear Research, Prague)

SUBMITTED: December 29, 1959

✓

Card 4/4

CHALUPA, Bohumir; KUNZ, Ivo

Method of analyzing static reactions of the hand and possibilities of their practical use. Prac. lek. 16 no.8:352-356 0 '64.

1. Klinika nemoci z povolani lekarske fakulty University J.E. Purkyne v Brne (prednosta doc. dr. J. Vyskocil) a Ustav pristrojove techniky Ceskoslovenske Akademie ved v Brne.

L 13152-66

ACC NR: AP6005669

SOURCE CODE: CZ/0079/65/007/002/0180/0181

AUTHOR: Chalupa, B.; Osecky, P.

ORG: Clinic of Occupational Diseases, Brno

TITLE: Use of model performances in the time analysis of attention [This paper was presented at the Third Interdisciplinary Conference on Experimental and Clinical Study of Higher Nervous Functions held in Mariánské Lázně from 19 to 23 October 1964.]

SOURCE: Activitas nervosa superior, v. 7, no. 2, 1965, 180-181

TOPIC TAGS: psychology, behavior pattern, vision

ABSTRACT: Some new methods or possibilities for time analysis of attention are suggested; they are based on model performances that correspond to the supposed structure of operations and processes that take place in serial differentiation of complex visual stimuli. Correlations between results of model activities and individual performance curves were analyzed. The most regular relationship was between motor alternating experiments and the index of curve dispersion. There was also a relation to the total level of performance. In experiments with dual activity, a relationship between behavior of the dominant center of excitation and the phase characteristics of the attention curve was found. Oscillations of attention are related to spatial and temporal differences in the excitability of activity centers included in

Card 1/2

ACC NR: AP6005669

the complex functional system. Orig. art. has: 1 table. [JPRS]

SUB CODE: 05, 06 / SUBM DATE: none / ORIG REF: 004 / SOV REF: 001

Card

2/2

HW

L 15990-66 EPF(n)-2/EWA(h)/EWT(m)

ACC NR: AP6008437

SOURCE CODE: GZ/0038/65/011/009/0330/0335

AUTHOR: ~~Chalupa, Bohumil~~—~~Khalupa, B.~~; ~~Kajfosz, Josef~~—~~Khayfosz, I.~~; Vavra, ⁴⁶
Jaroslav—~~Vavra, Ya.~~; ~~Holecck, Josef~~—~~Golechek, Y.~~ _B

ORG: Institute of Nuclear Research, CSAV, Rez (Ustav jaderného výzkumu CSAV)

TITLE: Automation of physical experiments with polarized neutrons

SOURCE: Jaderna energie, v. 11, no. 9, 1965, 330-335 19.44.55

TOPIC TAGS: circular polarization, gamma radiation, radiative capture, neutron, automation

ABSTRACT: A device is described that makes the apparatus for the measurement of circular polarization of gamma radiation from radiative capture of polarized neutrons on nuclei entirely automatic. Particular attention is aimed at problems having more general importance in the automation of physical experiments. This work was presented by J. Kopecky. Orig. art. has: 5 figures. NA

SUB CODE: 20, 18 / SUBM DATE: none / ORIG REF: 005

Card 1/1 *80*

UDC: 539.125.518.5: 539.171.018

✓Neurotic manifestations during chronic trichloroethylene intoxications. B. Chelupa (Masaryk Univ., Brno, Czech.). *Pracovní Lékařství* 4:254-04(1962).--The following signs of neuropsychic imbalance were observed in a group of 48 workers exposed for periods from 1 month to several years: loss of nervous and psychological control and emotional lability (neuroticism, absent-mindedness, etc.); excitation syndrome (irritability, insomnia, sweatiness, and breathing difficulties); states of anxiety, depression, and fatigability; disturbances of motor coordination and postural balance (dizziness and tremors). L. J. Urbánek

HARDODEJ, Z.; BERKA, I.; CHALUPA, B.; NESVADBA, O.; VYSKOCIL, J.

NEW DATA ON THE EFFECT OF TRICHLOROETHYLENE ON HEALTH IN WORKERS.
Pracovní lek. 4 no.6:441-467 Dec 1952. (CML 24:2)

1. Of the Department of the Industrial Hygiene (Head--Docent K.
Kadlec, M.D.) of KHS in Brno.

✓ Vestibular disturbances in methyl chloride poisonings.
B. Chalupa, A. Karen, and M. Ševčík (KÚNZ, Brno, Czech.).
Průmysl Lékařství 7, 278-81(1955).—Out of 28 workers
handling CH_3Cl for 6.8 years on the av. 27.3% showed
pathol. changes of the labyrinth caused mostly by acute
but also by chronic poisonings. The disturbances were
more frequent in summer than in winter. L. J. Urbánek

(2)

EXCERPTA MEDICA Sec.11 Vol.10/3 Oto-Rhino-Laryngo Mar57
CHALUPA B.

593. **CHALUPA B., KARENIA., POSPÍŠIL P. and ŠEVČÍK M.** Odd. pro Prevenci, Léčení a Posuzování nemocí z Povolání KUNZ a Klín. Chorób Ušních, Nosních a Krčních Lék. Fak. MU., Brno. *Práce v hluku a poškození hlukem u zaměstnanců ve zkušebně motorů. Work in noisy environments and hazards of noise in workers in a motor testing plant PRACOVNI LEKARSTVI (Praha) 1956, 8/4 (269-276) Graphs 2 Tables 6

The authors report on a complex examination of 40 employees working in a noisy environment in a motor testing plant. The noise level at the workplace reached 114 db. when operations were slack, and approached the threshold of pain (130 db.) when all the motors were at work. The shortest time of exposure was 4 months, the longest 6.5 yr. The average age of the employees was 32.7 yr. Audiometrically, typical loss of hearing in the range of high sounds was found in 30% of cases; in 25% more marked hearing changes with affection of hearing speech were observed. Only in 45% of the employees the hearing was practically normal. Hearing impairment increased less with the duration of exposure to noise, but significantly with the age of the workers. The adaptation of hearing losses after 24 hr. rest was slight, the highest difference of 5.5 db. was found in the frequency of 4,096 cycles. The degree of drowning was higher in the initial stage of noise exposure and was not dependent on the size of the remaining hearing loss. The participation of cerebral effects in the origin of drowning is pointed out. (XI, 17)

CHALUPA, B., PhDr.; KAREN, A., MUDr.; POSPISIL, P., PhDr.; SEVCIK, M., MUDr.

Complex examination of workers in a noisy environment. Cesk.
otolar. 6 no.2:65-69 Apr 57.

1. Oddeleni pro prevenci lezeni a posuzovani nemoci z povolani
KUMZ v Brne, prednosta doc. MUDr K. Kadlec. Klinika chorob
usnich, nosnich a krcnich lekarske fakulty MU v Brne, prednosta
prof. MUDr. Fr. Winger.

(NOISE, inj. eff.

in workers of motor testing plant, diag. & prev. (Cs))

(OCCUPATIONAL DISEASES

inj. eff. of noise in workers of motor testing plant,
diag. & prev. (Cs))

CZECHOSLOVAKIA/Chemical Technology. Chemical
Products and Their Applications.
Safety and Sanitation.

H-6

Abs Jour : Ref Zhur-Khimiya, No 7, 1959, 23865

Author : Chalupa, B., Kopečný, J., Kvasnicka, O.,
Sevcik, M.

Inst : -

Title : Clinical Investigation of Workmen Employed
in the Manufacture of Silicon Carbide.

Orig Pub : Pravocni lekar., 1958, 10, No 2, 153-156

Abstract : The medical check-up of 36 workers employed
in the manufacture of silicon carbide revealed
changes in the bronchial and upper respiratory
tracts. Pneumoconiosis was not present. In a group of workmen the signs of

Card : 1/2

Klin. Chor. z. Povolani, BRNO

CZECHOSLOVAKIA/Chemical Technology. Chemical
Products and Their Applications.
Safety and Sanitation.

H-6

Abs Jour : Ref Zhur-Khiniya, No 7, 1959, 23865

chronical CO poisoning were noted (insomnia, irritability, headaches). It is recommended to isolate production processes in which CO is generated, to install adequate ventilation at the sources of dust formation, to use respirators and other means. The bibliography consists of 12 titles. -- T. Brzhevskaya

Card : 2/2

H-29

CHALUPA, B.; SYMCOVA, J.; SERVICIK, M.

Electroencephalographic changes and memory disorders in acute intoxication with industrial poisons. Cas.lek.cesk. 98 no.38: 1207-1208 18 S '59.

1. Klinika chorob z povolani v Brne, prednosta doc. MUDr. K. Kadlec.
Psychiatricka klinika v Brne, prednosta prof. MUDr. J. Hadlik.
(OCCUPATIONAL DISEASES)
(POISONING)
(ELECTROENCEPHALOGRAPHY)
(MEMORY)

CHALUPA, B.

Memory disorders in acute carbon monoxide poisonings. Pracovní
lek. 12 no.7:331-336 S '60

1. Klinika chorob s povolání v Brně, přednosta doc. MUDr.
K.Kadlec.

(CARBON MONOXIDE toxicol.)

(MEMORY)

SEVCIK, M.; CHALUPA, B.; KLHUVKOVA, K.; HRAZDIRA, C.L.

Survey of health conditions in electric-welders. Pracovni lek.
12 no.5:229-235 Je '60.

1. Klinika chorob s povolani v Brne, prednosta doc. MUDr. K. Kadlec;
Oddeleni hygieny prace KHS v Brne, reditel MUDr. A. Svoboda; Neuro-
logicka klinika v Brne, prednosta prof. MUDr. K. Popek.
(INDUSTRIAL MEDICINE)

SYNKOVA, J.; CHALUPA, B.; SEVCIK, M.

An objective method for the detection of certain injuries in the
CNS in acute industrial poisoning. Cesk. psychiat. 57 no.2:104-
112 '61.

1. Psychiatricka klinika v Brne -- Klinika chorob z povolani.
(OCCUPATIONAL DISEASES diag) (POISONING diag)
(CENTRAL NERVOUS SYSTEM dis.)

CHALUPA, B.; KUNZ, I.

A method for the study of static reactions of the hand. *Activ. nerv.*
sup. 4 no.2:187-188 '62.

1. Klinika nemoci z povolani v Brne, Ustav pristrojove techniky CSAV
v Brne.

(HAND physiol)

CZECHOSLOVAKIA

B. CHALUPA, Occupational Diseases Clinic (Klinika nemoci z povolani)
Head Docent Dr J. VYSKOCIL, Brno.

"Effect of Industrial Poisonings on Memory Interference."

Prague, Activitas Nervosa Superior, Vol 5, No 1, Jan 63; pp 51-52.

Abstract: Study of short-term memory (nonsense syllables or letter sequences) in 211 patients including groups of CO, trichloroethylene and other solvents, Pb, Hg; chronic ionizing radiation intoxications; myxedema; organic CNS damage; neurosis; brucellosis, and healthy controls. Highest disruption was in myxedema; then industrial intoxications. No detailed data. Two Czech, 3 Western references.

1/1

SEVCIK, M.; CHALUPA, B.; HRAZDIRA, C.L.; KLHUKOVA, E.; SYNKOVA, J.

Acute group poisoning with active organic phosphates. Prac. lek. 14
no.7:317-321 S '62.

1. Klinika nemoci z povolani v Brne, prednosta doc. cr. J. Vyskocil.
(PHOSPHORUS POISONS ORGANIC) (NEUROLOGY)

CHALUPA, B.

Controlled fusion reactions. Jaderna energie 9 no.3:92-98 Mr '63.

L 18291-63 EWT(1)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pad JD/HW
 ACCESSION NR: AP3003663 Z/0055/63/013/006/0474/0476

AUTHOR: Kopecky, J., Chalupa, B., Michalec, R., Kajfosz, J.

TITLE: The beam of polarized neutrons obtained by the method of reflecting from a cobalt mirror

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 13, no 6, 1963, 474-476

TOPIC TAGS: polarized neutrons, magnetized cobalt mirror, reverse spin, depolarization, shim method

ABSTRACT: In the experimental magnetized mirror of cobalt on a copper base (both 50 microns thick), built by the 4 authors to obtain polarized neutrons, a beam of heat neutrons from the horizontal channel of their experimental reactor BFP-C, emitted by the collimator at the rate of (7.5 plus minus 0.2). 10 sup 7 neutrons/sq cm/sec. with a maximum angle deviation of 12 minutes, falls on a cobalt surface 500 x 120 mm. As already shown by others, in case of sufficiently large B's there is complete reflection for neutrons with a spin parallel to the magnetizing field (refraction coefficient less than 1), whereas for neutrons with

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L 18291-63
ACCESSION NR: AP3003663

reverse spin there is only refraction into the mirror (r.e. more than 1). This produces a neutron beam polarized in the direction of the field magnetizing the mirror. The degree of polarization was measured with another similar mirror, magnets with congruent fields being placed between them to maintain the direction of spin of the neutrons. The table shows that the method of double reflection gives comparatively low values differing from the true polarization because of depolarization of the beam in passing between the regions of the reverse magnetic fields. By using a third mirror the authors determined the quality of the other two and the relationship of their polarizations. Results: double-reflection method 0.788; shim method 0.857; combined 0.852. Using the better of the two mirrors as a polarizer, the degree of polarization attained in the reflected beam was 94 plus or minus 2%. The flow measured in the polarized beam was 2.10 sup 6 neutrons/sec (3.10 sup 5 neutrons/ sq cm/sec.). The flow can be increased by using a mirror 1-1.5 m long. The beam obtained will soon be used to study the radiation capture of polarized neutrons by nuclei. Orig. art. has 1 figure and 1 table.

Card 2/3

L 18291-63

ACCESSION NR: AP3003663

ASSOCIATION: Ustav jaderného výzkumu CSAV, Rez. (Institute of Nuclear Physics of the Czechoslovak Academy of Sciences).

SUBMITTED: 30Nov62

DATE ACQ: 16Jul63

ENCL: 00

SUB CODE: NS, PH

NO REF SOV: 004

OTHER: 006

Cord 3/3

VYSKOCIL, J.; KADLEC, K.; KUCERA, V.; CHALUPA, B.

Repeated studies of coal miners during 5 years with special consideration of chronic bronchitis and pulmonary emphysema. Vnitřní lek. 11 no.7:638-645 J1 '65.

1. Klinika nemoci z povolání lékařské fakulty University J.E. Purkyne v Brně (prednosta prof. Dr. J. Vyskocil).

CHALUPA, J.

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